

LISTING OF THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) A method for the patterned coating of a substrate (1) having at least one surface, comprising the steps of:
producing at least one negatively patterned first coating on the at least one surface;
depositing at least one second layer on the at least one surface that has been provided with the at least one negatively patterned first coating, said at least one second layer including an evaporation-coating glass; and
at least partially removing the at least one negatively patterned first coating.
2. (Previously presented) The method as claimed in claim 1, wherein the step of producing the at least one negatively patterned first coating comprises the step of uncovering a plurality of regions of the at least one surface.
3. (Previously presented) The method as claimed in claim 1, wherein the substrate is part of a wafer assembly and the method is carried out while the substrate is still part of the wafer assembly.
4. (Previously presented) The method as claimed in claim 1, wherein the step of depositing the at least one second layer comprises the step of deposition by evaporation coating.
5. (Previously presented) The method as claimed in claim 4, wherein the deposition by evaporation coating comprises the step of plasma ion-enhanced evaporation coating.
6. (Previously presented) The method as claimed in claim 4, wherein the deposition by evaporation coating comprises the step of electron beam evaporation.

7. (Previously presented) The method as claimed in claim 4, wherein the step of evaporation coating comprises the step of evaporation of evaporation-coating a material with a vitreous structure on the at least one surface from a single source.

8. (Previously presented) The method as claimed in claim 4, wherein the step of evaporation comprises the step of co-evaporation from at least two sources.

9. (Previously presented) The method as claimed in claim 1, wherein the step of depositing the at least one second layer comprises the step of depositing a composition which varies in a direction perpendicular to the at least one surface.

10. (Previously presented) The method as claimed in claim 1, wherein the step of depositing the at least one second layer comprises sputtering.

11. (Previously presented) The method as claimed in claim 1, wherein the step of depositing the at least one second layer comprises chemical vapor depositing.

12. (Previously presented) The method as claimed in claim 1, wherein the step of depositing the at least one second layer comprises the step of depositing an at least binary materials system.

13. (Previously presented) The method as claimed in claim 1, wherein the step of depositing the at least one second layer comprises co-deposition of organic material.

14. (Previously presented) The method as claimed in claim 1, wherein the step of producing the at least one negatively patterned first coating comprises the step of resist-coating.

15. (Previously presented) The method as claimed in claim 1, wherein the step of producing the at least one negatively patterned first coating comprises the step of embossing.

16. (Previously presented) The method as claimed in claim 1, wherein the step of producing the at least one negatively patterned first coating comprises the step of applying a photoresist film.

17. (Previously presented) The method as claimed in claim 1, wherein the step of producing the at least one negatively patterned first coating comprises screen printing.

18. (Previously presented) The method as claimed in claim 1, wherein the step of producing the at least one negatively patterned first coating comprises the step of lithographic patterning.

19. (Previously presented) The method as claimed in claim 1, wherein the step of producing the at least one negatively patterned first coating comprises the step of applying a photopatternable layer.

20. (Previously presented) The method as claimed in claim 19, wherein the step of applying said photopatternable layer comprises the step of applying a photoresist.

21. (Previously presented) The method as claimed in claim 1, wherein the step of at least partially removing the at least one negatively patterned first coating comprises the step of dissolving at least one portion of the at least one negatively patterned first coating in a solvent.

22. (Previously presented) The method as claimed in claim 1, wherein the step of at least partially removing the at least one negatively patterned first coating comprises the step of wet-chemical removal of at least one portion of the at least one negatively patterned first coating.

23. (Previously presented) The method as claimed in claim 1, wherein the step of at least partially removing the at least one negatively patterned first coating comprises the step of dry-chemical removal of at least one portion of the at least one negatively patterned first coating.

24. (Previously presented) The method as claimed in claim 1, wherein the step of at least partially removing the at least one negatively patterned first coating comprises the step of lifting off a plurality of regions of the at least one second layer.

25. (Previously presented) The method as claimed in claim 1, further comprising the step of at least partially uncovering the at least one negatively patterned first coating.

26. (Previously presented) The method as claimed in claim 25, wherein the step of at least partially uncovering the at least one negatively patterned first coating comprises the step of planarizing the at least one surface.

27. (Previously presented) The method as claimed in claim 25, wherein the step of partially uncovering the at least one negatively patterned first coating comprises the step of mechanical abrasion.

28. (Previously presented) The method as claimed in claim 1, further comprising exposing the at least one second layer to an aftertreatment process selected from the group consisting of a wet-chemical process, a dry-chemical process, a thermal reflow process, a doping process, and any combinations thereof.

29. (Previously presented) The method as claimed in claim 1, further comprising repeating the steps of producing the at least one negatively patterned first coating on the at least one surface and of depositing the at least one second layer.

30. (Previously presented) The method as claimed in claim 1, further comprising the step of joining the at least one substrate to a further substrate selected from the group consisting of a semiconductor component, an optoelectronic component, a micro-electromechanical component, and any combinations thereof.

31. (Previously presented) The method as claimed in claim 1, wherein the at least one second layer defines a component selected from the group consisting of at least one phase grating, at least one optical component, at least one channel, at least one waveguide, and any combinations thereof.

32. (Previously presented) The method as claimed in claim 1, further comprising the step of at least partially filling structures of the at least one second layer with a conductive material and/or a transparent material.

33. (Previously presented) The method as claimed in claim 1, further comprising the step of applying at least one conductive region to the at least one surface of the substrate and/or the at least one second layer.

34. (Previously presented) The method as claimed in claim 32, wherein the step of filling structures in the at least one second layer comprises the step of producing at least one passive electronic component selected from the group consisting of a capacitor, a resistor, an inductance, and any combinations thereof.

35. (Previously presented) The method as claimed in claim 1, further comprising the steps of:
producing the at least one negatively patterned first coating on at least two surfaces of the substrate;
depositing the at least one second layer on the at least two surfaces; and
at least partially removing the at least one negatively patterned first coating from each of the at least two surfaces.

36. (Previously presented) The method as claimed in claim 1, further comprising the step of applying a bonding layer to the at least one second layer, wherein the bonding layer comprises a seed layer for a subsequent metallization and/or an adhesive layer.

37. (Previously presented) The method as claimed in claim 1, wherein the at least one second layer is deposited through a mask.

38. (Previously presented) The method as claimed in claim 37, further comprising bringing the mask into contact with the at least one surface of the substrate.

39. (Previously presented) The method as claimed in claim 37, further comprising joining the mask to the at least one surface.

40. (Previously presented) The method as claimed in claim 37, further comprising adhesively bonding the mask to the substrate.

41-67. (Cancelled).